

**ANNUAL REPORT: June 1, 2012 – May 31, 2013**  
**(i.e., Summer 2012, AY 2012-2013)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

NAME: Donald J. Stewart

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>	<u>No. of Lab. Sections</u>
SUMMER:	EFB 202	Ecol. Monitor. & Biodiv. Assess.	3	~75	4 days [Aquatics Section]
FALL:	EFB 797	Seminar – Grant Proposals F&W [ w/ J. Cohen]	1	14	
SPRING:	EFB 486	Ichthyology	3	73	4
	EFB 523	Tropical Ecology [w/ Colin Beier]	3	17	[In Dominica]

**NOTE: PLEASE INDICATE WHICH COURSE(S) HAD A SERVICE-LEARNING COMPONENT AND BRIEFLY EXPLAIN THE NATURE OF THIS COMPONENT.** For examples of service-learning in courses, see: <http://www.esf.edu/students/service/courses.htm>. Service-learning is a form of structured experiential education in which students engage with the community to be active learners, to enrich their sense of civic responsibility, and to explore practical application for course content. Faculty oversight, reflective thinking, and reciprocity are key components of service-learning.

In Ichthyology (EFB 486, EFB 796), we do a survey each year of fish communities along a river gradient in central New York. This year we studied the gradient along Chittenango Creek. When new or unusual fish distributions are found, the DEC may be advised, and sometimes, specimens are preserved and provided to the New York State Museum. Periodically, such results are provided to NYS DEC personnel who monitor conservation status of fish populations in the state.

2. Non-Scheduled Course Offerings (e.g., 496, 899, 999)

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>
SUMMER	EFB 798	Research Problems – EFB	1	1
FALL:	EFB 798	Research Problems – EFB	9(6,3)	2
	EFB 899	Masters Thesis Research	3	1
	EFB 999	Doctoral Thesis Research	13(1,1,5,6)	4
SPRING:	EFB 498	Independent Res./EFB	5(2,2,1)	3
	EFB 495	Undergrad Exp/Coll Teach	4(2,2)	2
	EFB 796	Advanced Ichthyology	3	3
	EFB 798	Research Problems – EFB	9	1
	EFB 899	Masters Thesis Research	3	1
	EFB 999	Doctoral Thesis Research	13(1,1,3,8)	4

3. Continuing Education and Extension (short courses, workshops, etc.)

4. Guest Lecture Activities

	<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
FALL:	EFB 132	ORIENTATION SEMINAR: EFB	2
	EFB 404	NATURAL HIST MUSEUMS & MODRN SCI	1
SPRING	EFB 211	DIVERSITY OF LIFE II	1

## II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student's official advisor \_21\_ and unofficial advisor \_\_\_\_\_

B. Graduate Students: (list name, degree sought, starting date, month & year; if a degree was completed, please give date and full citation for the thesis or dissertation).

### MAJOR PROFESSOR

Clifford, Kean M., Master of Science (joint MPA at SU), EFB Ecology, Aug., 2011.

Gurdak, Daniel J., Doctor of Philosophy (joint MPA at SU), EFB Ecology, May, 2009.

Hermann, Theodore W., Doctor of Philosophy (joint MPA at SU), EFB Fish & Wildlife Biology & Mgt, Aug., 2010.

Mandrekar, Kapil D., Doctor of Philosophy, EFB Ecology, Aug., 2009.

Matillano, Joie D., Doctor of Philosophy, EFB Fish & Wildlife Biology & Mgt, Jan., 2012.

### CO-MAJOR PROFESSOR

#### MEMBER, STEERING COMMITTEE (other than those listed above)

Bauer, Eric F., Master of Science, EFB Fish & Wildlife Biology & Mgt, MP Whipps

Brainard, Andrew, Doctor of Philosophy, EFB Fish & Wildlife Biology & Mgt, MP Schulz

Connerton, Michael J., Doctor of Philosophy, EFB Fish & Wildlife Biology & Mgt, MP Ringler

Kirby, Lucas J., Doctor of Philosophy, EFB Ecology, MP Ringler

Miller, Andrew, Master of Science, EFB Ecology, MP Ringler [finished Dec. 2012]

### CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Chairman of Thesis Defense, Bardhyl Bajrami, MS Candidate, Paper and Bioprocess Engineering, Dec. 2012.

## III. RESEARCH COMPLETED OR UNDERWAY

A. Departmental Research (unsupported, boot-legged; title - % time spent)

Publications in prep based on previous grants:

Watson, L.C., D.J. Stewart, and A.M. Kretzer. MS in Prep. Genetic assessment of the threatened *Arapaima* in Guyana: implications for conservation of a giant fish. For submission to: Molecular Ecology.

B. 1. Grant-supported Research (source, subject, amount - total award and current year, award period starting and ending dates; list graduate research assistants supported by each grant)

2. Research Proposals pending (include information as in B.1., above).

1) National Geographic Society. **Tracking arapaima to create sustainable reserves for inland fisheries in the Brazilian Amazon**, \$27,200, 1 Dec. 2013—30 Nov. 2014, would partially support PhD thesis research of Daniel Gurdak. Co-Investigator (PI: Peter Klimley, UC Davis; 4 other Brazilian and US Co-Investigators).

2) USAID, funds administered by a Peruvian resource agency. **Caracterización morfológica y molecular de *Arapaima gigas* en tres localidades de la Amazonía peruana**, \$27,000, Aug. 2013—Dec. 2013, Co-Investigator (PI: Carmen R. García Dávila, IIAP, Iquitos, Peru; 5 other Peruvian and French Co-Investigators); funds approved, waiting for final processing.

3. Research Proposals submitted, but rejected (include information as in B.1., above)

National Science Foundation, Preliminary Proposal: **Unraveling Complex Migratory Behaviors in Amazonian Catfishes: Do They Home?** (no budget), dates undet. – est. 3 yrs, would partially support PhD thesis research of Ted Hermann. PI (Co-PIs: L. Castello and K. Limburg; 8 other French and Peruvian Collaborators).

National Science Foundation, Dissertation Research: **An Analysis of Habitat Use and Migration of the Giant Fish Pirarucu (Genus *Arapaima*) in Lower Amazonian Floodplains**, \$19,500, 1 June 2013—30 May 2014, would partially support PhD thesis research of Daniel Gurdak. PI (Co-PI: D. Gurdak).

National Geographic Society, Preliminary Proposal: **Unraveling Linkages Among River Floodplain Dynamics, Fish Populations, and Habitat Structure in the Amazon**, (est. \$25,000), dates undet. – est 1 yr, would partially support PhD thesis research of Daniel Gurdak. Project Team: D. Stewart, D. Gurdak, P. Kimley; 3 other Brazilian and US Collaborators).

MacArthur Foundation, Letter of Intent: **Conservation of the Amazonian giant fish *Arapaima*: from endangered to invasive species**, \$505,000, 2013-2016, 3 yrs, Co-Coordinator (PI: Jesus Nunez Rodriguez, Institut de Recherche pour le Développement, Lima, Peru; 2 other Peruvian and Bolivian Co-Coordiators).

SUNY-ESF, Seed Grant Program, **Morphological Variation among Populations of Bowfin (*Amia calva*): Developing Information needs for Conservation and Management**, \$2,140, June—Aug. 2013, PI.

**IV. PUBLICATIONS** (Full bibliographic citation, i.e., do not use "with Jones," or "Jones, et al."; please list only publications published, in press, or actually submitted during this reporting period --- **do not list manuscripts in preparation**).

A. Refereed Publications

Stewart, D.J. 2013. Re-description of *Arapaima agassizii* (Valenciennes), a rare fish from Brazil (Osteoglossomorpha, Osteoglossidae). *Copeia* 2013: (1): 38-51.

Stewart, D.J. 2013. A new species of *Arapaima* (Osteoglossomorpha, Osteoglossidae) from the Solimões River, Amazonas State, Brazil. *Copeia* 2013(3): In Press.

Watson, L.C., D.J. Stewart, and M. Teece. 2013. Trophic ecology of *Arapaima* in Guyana: giant omnivores in Neotropical floodplains. *Neotropical Ichthyology* 11(2): In Press.

He, J.X., D.J. Stewart, and L.G. Rudstam. In Press. Growth parameters as growth indices in time-varying environments: comparisons among approaches to using von Bertalanffy growth functions. *In: Oneida Lake: Long-term Dynamics of a Managed Ecosystem and its Fisheries*. L. Rudstam, E. Mills R. Jackson and D. Stewart [eds., book in production, Am. Fish. Soc. – most chapters, including this one, now in page proof, could be printed later in 2013 or early 2014].

Castello, L, D.J. Stewart, and C.C. Arantes. MS Accepted pending final edits. O quê sabemos e precisamos fazer a respeito da conservação do pirarucu (*Arapaima* spp.) na Amazônia. Chapter for a book on ecology and management of *Arapaima*, being produced in Brazil, in Portuguese.

B. Non-refereed Publications

C. Papers Presented at Science Meetings (give title, date, occasion, and location)

D. Public Service Presentations (lectures, seminars, etc. to and for the public; give group or occasion, date(s), and attendance)

## V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):

2. Industrial and Commercial Groups, etc.

B. Unfunded Service to Governmental Agencies, Public Interest Groups, etc.

## VI. PROFESSIONAL DEVELOPMENT

A. Professional Honors and Awards (for teaching, research, outreach, etc.)

B. 1. Activities in Professional Organizations (offices held, service as chairman, member, participant or consultant)

2. Professional Society Membership

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Agency

No. of proposals

Other

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.

D. Foreign Travel (Where, When, Purpose)

## **VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)**

A. Department-level

B. College-level

C. University-wide, including Research Foundation

## **VIII. SUMMARY OF SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS DURING THIS REPORTING PERIOD, ESPECIALLY THOSE MOST NOTEWORTHY AND RELATIVE TO THE COLLEGE'S AND DEPARTMENT'S MISSION.**

**One** paragraph on each of the following (**i.e., three paragraphs total**) would be most helpful: this past year, what have you done for our students, department/college, and self professionally? NOTE: The information in this section (along with the supporting specific information elsewhere in this report) should be your strongest case for being considered for a discretionary raise (when available), which I'll continue to award based on your contributions to the department and college this reporting period.

**IX. A. FUTURE PLANS, AMBITIONS, AND POTENTIAL CONTRIBUTIONS FOR YOUR OWN PROFESSIONAL DEVELOPMENT AND THE ENHANCEMENT OF THE PROGRAM IN ENVIRONMENTAL AND FOREST BIOLOGY (brief summary)**

**B. PROJECTED ACTIVITIES FOR NEXT YEAR**

1. Summer 2013

a. Course(s) to be offered

b. Proposed research activity

c. University, professional society, and public service

2. Fall Semester 2013

a. Course(s) to be offered

b. Proposed research activity

c. University, Professional society, and public service

3. Spring Semester 2014

a. Course(s) to be offered

b. Proposed research activity

c. University, professional society, and public service